

REMARKS

Claims 1, 2 and 4-28 are active. Independent Claims 1 and 25 have been amended to incorporate an average particle size limitation of Claim 3. New Claim 26 finds support at page 6, line 8 of the specification. Claim 27, directed to alkyl glutamic acid, finds support in the specification at page 6, lines 16-17 (N-stearoyl-L-glutamic acid monosodium salt) and page 5, lines 2-3 (N-acylglutamic acid salt). Claim 28, directed to alkyl taurine, finds support in the specification at page 6, line 18 (N-stearoyl-N-methyltaurine) and at page 4, lines 20-21 (fatty acid amide sulfonic acid salt). Accordingly, the Applicants do not believe that any new matter has been added.

The Applicants thank Examiner Yu for the courteous and helpful interview of March 27, 2003. Amendments to clarify the claim language and address the claim objections were discussed, for example, the inclusion of the average particle size limitation of Claim 3 into Claim 1. As discussed, Claims 1 and 20 have been limited to refer to an average particle size.

The advantages of the present invention were discussed. The invention provides a stable and transparent emulsion when extremely small amounts of surfactants compared with the amount of oily components are used. It was suggested that the Applicants point out the importance of selecting a surfactant having a dynamic surface tension value below 57 mN/m in conjunction with an >10:1 oil:surfactant ratio and that the Applicants provide technical data showing the dynamic surface tension values for various surfactants described by the specification and the prior art. The Applicants note that their prior Declaration already

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describes these values for most of the surfactants exemplified by Yu et al. Accordingly, the Applicants now review these issues and the experimental data as it demonstrates the superior properties of the emulsions of the present invention below. Favorable consideration is requested.

#### Claim Objections

Claims 6, 7 and 18 were objected to under 37 C.F.R. 1.75(c) as being in improper form as failing to further limit the subject matter. These objections are moot in view of the amendment of these claims.

#### Rejection--35 U.S.C. 103

Claims 1-3, 6-8 and 10-21 were rejected under 35 U.S.C. 103(a) as being unpatentable over Yu, English translation of JP 63-126542. Unlike Yu, the present invention requires the selection of a surface active agent having a dynamic surface tension of 57 mN/m or less to obtain a stable, transparent emulsion when the amount of oily component in the emulsion is greater than 10 times the amount of the surface active agent.

Yu does not envisage or suggest (1) selecting of a surface active agent having a dynamic surface tension of 57 mN/m or less for (2) the production of an emulsion wherein the ratio of the oily component is more than 10 based on the surface active agent.

Yu, see e.g. page 7, lines 1-3, is broadly directed to emulsions produced with various ratios of ingredients and does not suggest that stable, highly-transparent emulsions could be produced using a ratio of at least 10 parts oily component to 1 part of surface active agent.

Specifically, Yu does not suggest that such emulsions could be produced by selecting a surface active agent having a dynamic surface tension of 57 mN/m or less.

Moreover, Yu does not provide a reasonable expectation of success in obtaining emulsions with the superior properties of those of the invention, such as superior transparency. Selection of a surface active agent with a dynamic surface tension of 57 mN/m, provides an emulsion with superior properties, such as very high transparency, see Table A below.

TABLE A

surface active agent	dynamic surface tension	Transparency
<b>alkyl glutamate sodium</b>	<b>49.6 mN/m</b>	<b>&gt;80%</b>
<b>POE alkyl ether</b>	<b>51.6 mN/m</b>	<b>&gt;80%</b>
<b>alkyl methyl taurine sodium</b>	<b>53.3 mN/m</b>	<b>&gt;80%</b>
alkyl Castor oil	58.0 mN/m	<20%
sorbitane mono alylate	58.4 mN/m	<20%

As shown in Table A above, oil-in-water emulsions produced using a surface active agent having a dynamic surface tension of 57 mN/m or less (**embolded**), produce highly transparent emulsions, e.g. emulsions having a transparency above 80%. On the other hand,

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emulsions produced with surface active agents having a dynamic surface tension above 57 mN/m exhibited less than 20% transparency. Emulsions with high transparency are desirable in many applications, such as in cosmetics.

The Official Action indicated that the data in the Declaration were not persuasive because the data were not commensurate in scope with the claims. The Applicants disagree as the claims are clearly limited to emulsions produced by selecting a surface active agent having a dynamic surface tension of 57 mN/m or less. The Declaration shows precisely this: that selection of a surface active agent having a dynamic surface tension of 57 mN/m or less produces a highly transparent emulsion as shown by a representative number of such surface active agents. The emulsions produced with the surface active agents required by the present invention each had transparency above 80%. On the other hand, comparative surface active agents not having a dynamic surface tension of 57 mN/m or less did not, producing emulsions having less than 20% transparency. Accordingly, the Applicants respectfully submit that the data of record clearly are commensurate in scope with the claims and demonstrate the superior properties of the emulsions of the present invention.

Moreover, to further distinguish the invention from the prior art, new Claims 26-28 have been added. The Applicants note that the surface active agents described by these claims are exemplified in the prior Declaration (see the Table reproduced above).

Therefore, as the prior art does not envisage or suggest the stable oil-in-water emulsions of the invention that use a surface active agent with a dynamic surface tension of

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57 mN/m or less, or disclose or suggest the superior properties of such emulsions, the Applicants respectfully request that this rejection be withdrawn.

Rejection--35 U.S.C. 103

Claims 4, 5 and 9 were rejected under 35 U.S.C. 103(a) as being unpatentable over Yu, English translation of JP 63-126542, as applied to Claims 1-4, 6-8 and 10-21 above, and further in view of Draper et al., U.S. Patent No. 6,121,228. Draper is directed to liquid cleaning compositions that contain less than 10 parts of oily substance to 1 part surfactant and Draper does not suggest producing emulsions by selecting a surface active agent having a dynamic surface tension of 57 mN/m or less. The Applicants submit that this rejection may be withdrawn for the reasons set forth above for the rejection of Claims 1-4, 6-8 and 10-21.

Rejection--35 U.S.C. 103

Claim 10 was rejected under 35 U.S.C. 103(a) as being unpatentable over Yu, English translation of JP 63-126542, as applied to Claims 1-4, 6-8 and 10-21 above, and further in view of Ansel, Pharmaceutical Dosage Forms and Drug Delivery Systems. The Applicants submit that this rejection may be withdrawn for the reasons set forth above for the rejection of Claims 1-4, 6-8 and 10-21.

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Rejection--35 U.S.C. 103

Claim 22 was rejected under 35 U.S.C. 103(a) as being unpatentable over Yu, English translation of JP 63-126542, as applied to Claims 1-4, 6-8 and 10-21 above, and further in view of Gers-Berlag et al., U.S. Patent No. 5,876,702. The Applicants submit that this rejection may be withdrawn for the reasons set forth above for the rejection of Claims 1-4, 6-8 and 10-21.

Rejection--35 U.S.C. 103

Claims 23 and 25 were rejected under 35 U.S.C. 103(a) as being unpatentable over Yu, English translation of JP 63-126542, as applied to Claims 1-4, 6-8 and 10-21 above, and further in view of Diec et al., U.S. Patent No. 6,468,551 B1. The Applicants submit that this rejection may be withdrawn for the reasons set forth above for the rejection of Claims 1-4, 6-8 and 10-21.

Rejection--35 U.S.C. 103

Claims 4, 5 and 9 were rejected under 35 U.S.C. 103(a) as being unpatentable over Yu, English translation of JP 63-126542, as applied to Claims 1-4, 6-8 and 10-21 above, and further in view of Brunetta et al., U.S. Patent No. 5,562,911. The Applicants submit that this rejection may be withdrawn for the reasons set forth above for the rejection of Claims 1-4, 6-8 and 10-21.

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CONCLUSION

In view of the above amendments and remarks, the Applicants respectfully submit that this application is now in condition for allowance. Early notification to that effect is earnestly solicited.

Respectfully submitted,

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